REMARKS

Claims 1-27 are currently pending in the application; with claims 1, 9, 13, 16, and 23 being independent. Applicant respectfully requests favorable consideration of the application based upon the remarks presented herein.

Applicant notes that an Information Disclosure Statement ("IDS") filed on August 6, 2001, was not included with the Office Action. As a courtesy to the Examiner, Applicant encloses herewith a copy of the IDS and the stamped postcard receipt. Applicant respectfully requests the Examiner consider the IDS and indicate said consideration with the appropriate markings.

Claim Rejections – 35 USC §103(a): Lazzouni/Comerford

In the Office Action, claims 1-19, 22-24, and 26-27 were rejected under 35 USC §103(a) as being unpatentable over USP 5,661,506 to Lazzouni et al. ("Lazzouni") in view of USP 5,243,149 to Comerford et al. ("Comerford"). Applicant submits the Examiner failed to establish a *prima facie* case of obviousness and therefore traverses this rejection.

Regarding claim 1, Lazzouni merely teaches an information recording apparatus which includes an encoded paper, an imaging pen and a recording/processing unit. The encoding is associated with the surface of a paper and includes a pattern of pixels which contain absolute position information. The paper pixels include bit locations which are printed with infrared inks that are invisible to the human eye (column 4, lines 14-21). The pen includes a writing instrument such as a fountain pen, and an imaging system such as a video

camera (column 4, lines 61-68). The writing tip of the writing instrument traces visible markings drawn by the pen. Simultaneously, the absolute positions of the writing tip on the surface of the paper are determined from images of a pattern of prerecorded paper pixels associated with the surface of the paper (see column 5, lines 1-6). Signals representative of images of the paper pixels are transmitted through a cable to a recording/processing unit where the signals are processed to obtain position information (column 5, lines 5-8). Specifically, the imaging system (36) illuminates the encoded paper (14) and provides image signals representative of images of paper pixels near the writing tip as it is moved over the encoded paper (14) by a user. (See column 5, lines 19-23; Figure 2.)

Lazzouni further teaches the encoding paper having a pre-recorded pattern of paper pixels providing absolute positioning information. The encoded position information permits the absolute position of the pen tip (18) to be determined by the imaging system (36) simultaneously with writing. A continuous record of the path followed by the pen tip (18) is stored in the recording/processing unit (20). The path is specified in terms of the coordinates of the paper pixels on the encoded paper (14). Preferably, the pattern of pixels is a uniform X-Y grid pattern, including rows and columns of pixels. (See column 7, lines 22-31.)

A paper pixel used in absolute position encoding is illustrated in Figure 8. Bit location numbers for the paper pixel (100) are illustrated in Figure 9. The pixel includes a plurality of bit locations (102, 104, 106), etc. in an array of rows and columns. Each bit location preferably has a square configuration and contains a single binary bit represented by the presence or absence of infrared

ink. Figure 8 shows the square bit locations, also known as encoding squares, being placed apart and arranged in rows and columns. A homing feature (110) is located at the center of the paper pixel (100). The bit locations preferably all have the same size, and the homing feature (110) is larger than the bit locations. Lazzouni further teaches that paper pixel (100) has six square bit locations along each axis with a total of 32 bit locations. (See column 7, lines 32-45.)

In addition to the homing feature at the center of paper pixel (100), the paper pixel includes encoded X and Y coordinate information, orientation information and may include additional information, such as page number and pad number. Specifically, eight encoding squares are reserved for the X-coordinate of the pixel on the paper, eight encoding squares are reserved for the Y-coordinate of the pixels on the paper, and four encoding squares are reserved for paper pixel orientation. The remaining encoding squares are reserved for page or pad number, or any other desired information. (See column 7, lines 52 through column 8, line 11; Table I.)

Conversely, Lazzouni fails to teach or suggest, at least, "an identity pattern on the surface indicating positions on the surface that may be marked to identify the form layout," as recited in claim 1, and "determining from the position data a form layout printed from the surface," as recited in claim 16. (Emphasis added.)

Comerford fails to cure the deficiencies of Lazzouni in this respect. Comerford merely teaches a tool for allowing a person to continue using paper in a traditional manner while at the same time providing for capturing information for efficient computer manipulation. (See column 1, lines 59-66.) Specifically,

Comerford teaches an electronic clipboard having a digitizing tablet (10) and a scanner (15). Scanner (15) is removable for scanning the surface of objects which need not be supported on the digitizing tablet (10). (See column 5, lines 9-24; Figures 1 and 2.) The scanner (15) includes an optical scanner element as shown in Figure 7. The scanning element includes a light source and optical detector arrangement to detect scanned signals (column 5, lines 65-68).

In one mode of operation, an object to be scanned is placed on the tablet in a secure manner. Scanner (15) then moves along tablet (10) in order to digitize the surface of the object using optical scanning element (15S). (See column 6, lines 49-57.)

Comerford further teaches the use of the scanner/tablet combination in an application where a document which carries some original text and/or graphics as well as an identification (ID) in the form of a barcode. (See column 8, lines 33-37.) Comerford teaches that the barcode identification may be used to maintain synchronization or registration between the contents of the recorded data and the computer file system. (See column 2, line 67 through column 3, line 3.) Once the scanner reads the barcodes which are printed on the documents and once the document is mounted, user changeable fields, the barcode and/or other parts of a document header can be used to differentiate succeeding versions of a given document. (See column 3, lines 4-9).

Comerford's disclosure is distinguished by the features of claims 1 and 16 as quoted above, at least in the sense that it does not indicate positions on the surface that may be marked to identify the form layout. The barcode as taught by

Comerford merely is used to differentiate succeeding versions of a given document. (See column 3, lines 6-9.)

Moreover, Applicant submits that one of ordinary skill in the art would not be motivated to modify the teachings of Lazzouni by the teachings of Comerford as the Examiner suggests in the rejections of claims 1 and 16. Lazzouni teaches a paper pixel, as depicted in Figure 8, having thirty-two encoding squares which may encode any type of information. Aside from encoding X and Y positions, encoding squares may be used to determine pixel orientation, page or pad number, or any other desired information. (See column 7, lines 53-63; column 8, Table 1.) Any information that could be encoded in the barcoding as taught by Comerford would be more effectively encoded using the existing encoding scheme taught by Lazzouni. Modifying Lazzouni by the teachings of Comerford, as the Examiner suggests, would needlessly add additional complexity to the scanning mechanism of Lazzouni, because it would have to recognize and decode additional patterns other than those shown in Figure 8 and Figure 9.

Accordingly, Applicant respectfully request the Examiner to withdraw the rejections of claims 1 and 16. Claims 2-8 depend from claim 1 and are allowable by virtue of their dependency from allowable claim 1. Claims 17-19 and 22 depend from claim 16 and are allowable by virtue of their dependency from allowable claim 16.

Moreover, regarding claim 1, the Office Action admits that "Lazzouni does not specifically teach a form layout. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to assume that if a form exists,

then the form will have a layout." (See Office Action page 2, paragraph 3, lines 2-5.)

It therefore appears that the Examiner is using Official Notice to make up for the deficiencies of these references. The Examiner is respectfully reminded that an Official Notice rejection is improper unless the facts asserted are well-known or are common knowledge in the art, and capable of instant and unquestionable demonstration as being well known. It is never appropriate to rely solely on "common knowledge" without evidentiary support in the record as the principle evidence upon which a rejection is based. Accordingly, Applicant respectfully traverses the apparent Official Notice rejection and requests the Examiner cite a competent prior reference in substantiation of these conclusions, supply a personal affidavit supporting the Examiner's allegation, or else withdraw the rejection.

Regarding claim 16, the Office Action asserts, "Lazzouni fails to explicitly teach determining from the position data a form layout printed on a surface; and determining from the position data an information entry in an entry field defined by the form layout. However, ... [e]ach pixel defines a unique coordinate position on the surface of the paper (col. 8, lines 36-40). It would have been obvious to one of ordinary skill in the art at the time of the invention to use positional information available on the page to locate items on the page such as form inputs, providing the benefit of collecting data." (See Office Action page 9 bridging paragraph lines 7-15.) Applicant submits that neither reference teaches "determining from the position data a form layout printed on the surface," or

"determining from the position data an information entry in an entry field defined by the form layout" as recited in claim 16.

Again, it appears that the Examiner is taking Official Notice to make up for the deficiency of these references. Applicant respectfully traverses the apparent Official Notice position and requests the Examiner cite a competent prior art reference teaching all of the claimed elements, supply a personal affidavit supporting the Examiner's allegation, or else withdraw the rejection.

Regarding claim 9, Lazzouni merely teaches an encoded paper having a pre-recorded pattern of pixels which contain encoding position information. (See column 7, lines 22-24.)

However, Lazzouni fails to teach or suggest, at least, "printing on the surface an identity pattern indicating positions on the surface whose arrangement identifies the form layout," as recited in claims 9 and 13.

Comerford fails to cure the deficiencies of Lazzouni in this respect. Comerford merely teaches utilizing a UPC code affixed to a page which may be scanned in order to maintain synchronization or registration between the contents of recorded data and the computer file system holding the digitized information. User changeable fields in the barcode or other parts of the document header may be used to differentiate succeeding versions of a given document. However, Comerford fails to disclose at least an identity pattern indicating positions on the surface whose arrangement identifies the form layout," as recited in claims 9 and 16.

Moreover, one of ordinary skill in the art would not have been motivated to modify the teachings of Lazzouni by Comerford, because Comerford already teaches an encoding method which may store additional information in encoded squares printed on the surface of the paper which would be used instead of a UPC code as taught by Comerford. Accordingly, one of ordinary skill in the art would not go through the additional endeavor to modify Lazzouni to read UPC codes as taught by Comerford when this information may be stored in the existing encoding pattern.

Therefore, Applicant respectfully traverses the rejection of claims 9 and 13 and requests the Examiner to withdraw them. Claims 10-12 depend from claim 9 and are allowable by virtue of their dependency from allowable claim 9. Claims 14 and 15 depend from claim 13, and are allowable by virtue of their dependency from allowable claim 13.

Furthermore, regarding claim 9, the Office Action admits that Lazzouni does not specifically teach "the actual printing as a form layout." (See page 6, bridging paragraph, lines 2-3.) The Office Action goes on to assert that "it would have been obvious to one of ordinary skill in the art at the time of invention that the act of making the encoded paper as a form implies that it would have had to have been printed in one form or another providing the benefit of a template to fill in information." (See Office Action, page 6, bridging paragraph, lines 3-6.) Because none of the applied references teaches or discloses, at least, "printing on the surface a form layout indicating at least one entry field for receipt of information,"

it would appear that the Examiner is again taking Official Notice to make up for the deficiencies of the applied references.

Accordingly, Applicant traverses the apparent Official Notice rejection and requests the Examiner cite a competent prior art reference in substantiation of these conclusions, supply a personal affidavit supporting the Examiner's allegation, or else withdraw the rejection.

Regarding claim 23, Lazzouni merely teaches an information recording apparatus utilizing encoded paper which can be made in multi-sheet pads and can be made as a form or a blank paper, with or without visible reference lines. (See column 4, lines 51-57.)

Conversely, Lazzouni fails to teach or suggest, at least, "electronically receiving the signal and translating the signal into information reflecting an intention of the user," as recited in claim 23.

In the Office Action, the Examiner admits that Lazzouni fails to teach or suggest the above quoted feature. Moreover, Comerford is silent in this respect and fails to cure the deficiencies of Lazzouni. The Office Action goes on to state that "however, it would have been obvious to one of ordinary skill in the art at the time of the invention to store such data in a database, providing the benefit of maintaining data for subsequent use." (See Office Action, page 12, 2nd paragraph, lines 15-19.)

Applicant respectfully traverses this assertion because the references providing by the Examiner fail to teach all of the features of claim 23. In order to cure these deficiencies, the Examiner again appears to be taking Official Notice.

Applicant traverses the Official Notice and requests the Examiner cite a competent prior art reference in support of these conclusions, supply an affidavit supporting the Examiner's allegation, or else withdraw this rejection.

Claims 24, 26, and 27 depend from claim 23 and are allowable by virtue of their dependency from allowable claim 23.

Claim Rejections Under 35 USC §103(a): Lazzouni/Comerford/Light

The Office Action indicated that claims 20 and 21 are rejected under 35 USC §103(a) as being unpatentable over Lazzouni, over Comerford and in further view of USP 6,192,380 to Light et al. ("Light"). Applicant respectfully traverses the rejection of these claims.

Claims 20 and 21 depend from allowable claim 16 and thus include all of the recitations recited therein.

Light merely discloses a method and apparatus for filling in web page forms. More specifically, Light teaches a fill-in sub-unit and learning sub-unit which recognizes forms included in a web page. (See column 2, lines 63-67.) An auto fill-in system inspects the source code for the web page and recognizes tags associated with blanks in the form (column 3 lines 1-5).

Conversely, Light fails to cure the deficiencies of Lazzouni and Comerford and fails to teach or suggest, at least, "determining from the position data a form layout printed on the surface," as included in claims 20 and 21. Accordingly, Applicant respectfully requests the Examiner withdraw the rejections of claims 20 and 21.

Claim Rejections Under 35 USC §103(a): Lazzouni/Comerford/Sekendur

The Office Action indicated that claim 25 is rejected under 35 USC §103(a) as being unpatentable over Lazzouni, over Comerford and further in view of USP 5,852,434 to Sekendur ("Sekendur"). Applicant respectfully traverses the rejection of this claim.

Claim 25 depends from claim 23 and thus includes all of the recitations recited therein.

Sekendur merely discloses an apparatus which utilizes a writing surface such as paper, which is formatted with a position-related coding means for indicating X-Y coordinates capable of reflecting a frequency of light. A stylus or pen/pencil has a light source of a frequency for illuminating a surface. The frequency of light is absorbed by the surrounding writing surface but reflected by the coding means into the stylus onto a sensor. This signal may be sent to a computer for processing to determine position information. (See column 5, lines 1-14.)

Conversely, Sekendur fails to teach or suggest, at least, "electronically receiving the signal and translating the signal into information reflecting an intention of the user," as included in claim 25.

Accordingly, Applicant respectfully requests the Examiner to withdraw the rejection of claim 25.

Conclusion

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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Attachment(s):
1. Copy of PTO Form-1449 filed August 6, 2001
2. Copy of USPTO stamped postcard for #1 above

(Rev. 02/12/2004)